



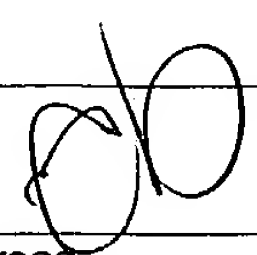
# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/945,239	08/31/2001	Peiguang Zhou	KCC-16,163	1306
7590 07/13/2004 Senniger, Powers, Leavitt & Roedel One Metropolitan Square, 16th Floor St. Louis, MO 63102			EXAMINER BOYD, JENNIFER A	
			ART UNIT 1771	PAPER NUMBER

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/945,239	Applicant(s) ZHOU ET AL.	
	Examiner Jennifer A Boyd	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 24 - 33 and 70 - 82 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24 - 33 and 70 - 82 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The Applicant's Amendments and Accompanying Remarks, filed April 23, 2004, have been entered and have been carefully considered. Claim 24 and 32 - 33 are amended and claims 24 - 33 and claims 70 - 82 are pending. In view of Applicant's Terminal Disclaimer, the Examiner withdraws the obvious-type double patenting rejection of claims 24 - 33 and 70 - 82 as discussed in paragraph 4 of the previous Office Action dated February 2, 2004. In view of Applicant's Amendments, the Examiner withdraws the rejections as discussed in paragraphs 5 - 8 of the previous Office Action dated February 2, 2004. The indicated allowability of claims 32 and 70 - 82 is withdrawn in view of the newly discovered combination of references of Tanzer (WO 01/15646) in view of Yang (US 5,539,056). Rejections based on the newly cited reference(s) follow.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

3. Claims 24 - 33 and 70 - 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanzer (WO 01/15646) in view of Yang (US 5,539,056)

Tanzer is directed to an absorbent article having superabsorbent in discrete pockets on a stretchable substrate (Title).

As to claims 24 and 70, Tanzer teaches an *absorbent composite 44* comprising a selectively stretchable liquid permeable *first substrate layer 46* and a selectively stretchable *second substrate layer 48* (page 6, lines 1 – 5 and Figure 2). Tanzer teaches that a *neckable web 112* may be used for either the *first substrate layer 46* or the *second substrate layer 48* or both (page 9, lines 6 – 10). The *layers 46* and *48* can be secured by a water insensitive attachment means (page 6, lines 25 – 28).

As to claims 32 – 33, Tanzer teaches that the *neckable web 112* may be a porous nonwoven material, such as a spunbonded web, meltblown web or bonded carded web (page 9, lines 23 – 25). The *neckable material 112* may be made of fiber forming polymers, such as polyolefins (page 9, lines 24 – 26), which are known in the art to be thermoplastic materials.

As to claim 71, Tanzer teaches that the *neckable web 112* can comprise a first layer of spunbonded polypropylene, a middle layer of meltblown polypropylene and a second layer of spunbonded polypropylene (page 10, lines 1 – 10).

As to claim 72, Tanzer teaches that either or both *layers 46* and *48* can comprise a *neckable web 112*, which may be a porous nonwoven material such as a spunbonded web.

As to claims 24 and 70, Tanzer fails to teach that the water insensitive attachment means is an adhesive composition comprising an atactic polymer having a degree of crystallinity of less than about 20% and a number-average molecular weight of from about 1,000 to about 300,000 and an isotactic polymer having a degree of crystallinity of at least about 40% and a number-average molecular weight of from about 3,000 to about 200,000. As to claims 73 – 74, Tanzer fails to teach that the adhesive composition is hot-melt processable at a temperature of about 450

Art Unit: 1771

°F and is in liquefied form. As to claim 75, Tanzer fails to teach that the adhesive composition has an atactic polymer with a degree of crystallinity less than about 15%. As to claim 76, Tanzer fails to teach that the adhesive composition has an isotactic polymer with a degree of crystallinity of at least 60%. As to claim 77, Tanzer fails to teach that the adhesive composition comprises between about 50 and about 90 weight percent of atactic polymer and between about 5 and 50 weight percent of the isotactic polymer. As to claim 78, Tanzer fails to teach that the atactic polymer is selected from the group consisting of a low density polyethylene, atactic polystyrene, atactic polybutene, amorphous polyolefin copolymer and combinations thereof. As to claim 79, Tanzer fails to teach that the atactic polymer comprises atactic polypropylene. As to claim 81, Tanzer fails to teach that the isotactic polymer is polypropylene.

Yang teaches a thermoplastic elastomer comprising a blend of about 10 – 90 weight percent of an amorphous polypropylene having a molecular weight of at least 150,000 and about 10 – 90 weight percent of a crystalline polypropylene having a molecular weight of less than about 300,000 (column 2, lines 33 – 48). Yang teaches that the crystalline polypropylene is an isotactic polypropylene (column 2, lines 45 – 50). Yang teaches that in another embodiment that the blend can consist of amorphous poly-alpha-olefin and crystalline poly-alpha-olefin where the poly-alpha-olefin is preferably a polypropylene homopolymer or copolymer (column 17, lines 34 – 43) as required by claim 78. Yang teaches that the polyolefin composition of the invention is preferably used in any thermoplastic elastomer application including adhesives (column 20, lines 20 – 30). Yang teaches suitable uses such as in diaper waistbands and surgical drapes and gowns (column 20, lines 20 – 35). Yang teaches that the elastomer has a melt temperature between 130

Art Unit: 1771

– 160°C (266 - 320°F) (column 19, lines 10 – 20), at which point the elastomer would be in liquid form. Yang notes that the composition of the invention is very flexible and strong (column 1, lines 35 – 40). As indicated by Wang (US 6,329,468), conventional polypropylene with a predominantly isotactic chain structure has a degree of crystallinity greater than 50% (column 2, lines 18 - 20). Also, it is known in the art that atactic means lack of crystallinity, therefore, an atactic polypropylene would have a crystallinity in the range of about 0%.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the hot-melt adhesive composition of Yang in the absorbent composite of Tanzer motivated by the desire to produce a high-performance product having an adhesive that is very flexible and strong.

As to claim 80, it should be noted that Tanzer in view of Yang teaches the use of atactic polypropylene and isotactic polypropylene in the adhesive composition, but does not specifically teach the use of polyethylene. However, polypropylene and polyethylene are both polyolefins and it would be obvious to interchange the two polyolefins because they are similar in properties and commonly used for the same products. It would have been obvious to one having ordinary skill in the art at the time the invention was made to interchange polyethylene for polypropylene as the atactic and isotactic components, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice. *In re Leshin*, 125 USPQ 416.

Art Unit: 1771

As to claim 31, Tanzer in view of Yang fails to teach that the first and second layers comprise a single material, said material being folded over and adhesively bonded to itself. However, it would have been obvious to fold over the material of the first layer to create the second layer in order to save manufacturing costs while increasing strength. Additionally, it would have been obvious to one having ordinary skill in the art at the time the invention was made to fold the first layer, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice. *In re Leshin*, 125 USPQ 416.

As to claims 25 – 30, although Tanzer in view of Yang does not explicitly teach the claimed static-peel-failure time of at least one hour as required by claim 25, static-peel-failure time of at least 8 hours as required by claim 26, static-peel-failure time of at least 24 hours as required by claim 27, relative accretion value of less than 1 as required by claim 28, relative accretion value of less than 0.5 as required by claim 29 and relative accretion value of less than 0.2 as required by claim 30, it is reasonable to presume that static-peel-failure time of at least one hour as required by claim 25, static-peel-failure time of at least 8 hours as required by claim 26, static-peel-failure time of at least 24 hours as required by claim 27, relative accretion value of less than 1 as required by claim 28, relative accretion value of less than 0.5 as required by claim 29 and relative accretion value of less than 0.2 as required by claim 30 is inherent to Tanzer in view of Yang. Support for said presumption is found in the use of like materials (i.e. a first layer attached to a second layer using an adhesive composition comprising a blend of about 10 – 90 weight percent of an amorphous polypropylene having a molecular weight of at least 150,000

Art Unit: 1771

and about 10 – 90 weight percent of a crystalline polypropylene having a molecular weight of less than about 300,000) which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of static-peel-failure time of at least one hour as required by claim 25, static-peel-failure time of at least 8 hours as required by claim 26, static-peel-failure time of at least 24 hours as required by claim 27, relative accretion value of less than 1 as required by claim 28, relative accretion value of less than 0.5 as required by claim 29 and relative accretion value of less than 0.2 as required by claim 30 would obviously have been present once the Tanzer in view of Yang product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

As to claim 82, the details of the patent are discussed above.



Art Unit: 1771


*Response to Arguments*


4. Applicant's arguments with respect to claims 24 – 31 and 33 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jennifer Boyd  
July 6, 2004

  
**Ula C. Ruddock**  
Primary Examiner  
Tech Center 1700